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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Docket Number (Optional)** PRE-APPEAL BRIEF REQUEST FOR REVIEW 3040 Filed **Application Number** I hereby certify that this correspondence is being deposited with the Family United States Postal Service with sufficient postage as first class mail 2/27/2004 10/708,393 in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] First Named Inventor Junal Syed Signature Examiner Art Unit 2871 Lie, Angela Typed or printed Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided. I am the applicant/inventor. assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. Typed or printed name (Form PTO/SBi96) 44517 attorney or agent of record. 719-2063 847 Registration number _ Telephone number 2006 attorney or agent acting under 37 CFR 1.34. Feloving Registration number if acting under 37 CFR 1.34 NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below. *Total of _ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer. U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Junaid Syed

Serial No.:

10/708,393

Filed: For:

2/27/2004

Reflector Antenna Backlobe

Suppressor Ring and Method of

Manufacturing

Docket Number:

3040

Confirmation No.:

2392

Examiner: Lie, Angela Art Unit:

2821

APPLICANT ARGUMENT FOR PRE-APPEAL BRIEF CONFERENCE

Mail Stop AF **Commissioner of Patents** P.O. Box 1450 Alexandria, VA 22313-1450

February 3, 2006

Background:

The present novel and non-obvious invention provides a cost effective radome that improves the electrical performance of reflector antennas it is mounted upon and a method for reducing the front/back ratio of a reflector antenna (electrical performance) by applying same radome to a reflector antenna.

The claimed radome has a conductive ring with an inward facing edge extending inward along the radome at least to an inner diameter of a distal end of a main reflector of the reflector antenna. The Examiner has failed to identify this element in the prior art, offering only a separate metal mounting clamp, which itself does not meet the claimed limitations and further is not properly combinable with the Examiner's primary reference.

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Argument:

The Examiner rejected claims 1, 2, 4-6 and 9-19 under 35 U.S.C. 103(a) as unpatentable over *Kildal* in view of *Tubbs*. The Examiner admits that "*Kildal* does not teach that the inward facing edge (of the conductive ring) extends inward along the radome at least to an inner diameter of a distal end of a main reflector of the reflector antenna" and supplies *Tubbs* therefore, citing a radome 126 and ring 14 (OA page 2, number 2).

The Examiner has failed to identify each of the claimed elements in the prior art:

Tubbs discloses a rotatable pillbox antenna fully enclosed within a protective enclosure formed by a lower casing 12 that mates with a radome 126. The radome 126 is attached to the antenna lower casing 12 by a band 14 (identified as "ring" by the Examiner). Plates 18 and 20, along with cylinder 22 together form a directional radiating cavity 24 which is rotatable within the protective enclosure. There is no "main reflector" dish to which the radome is attached, the directional radiating cavity 24 is the entire electrical structure for the *Tubbs* antenna. The radome 126 is attached only to the lower casing 12, which is purely structural, not a part of the antenna, itself. Because the radiating cavity 24 is fully enclosed and rotatable without contacting either the radome 126 or lower casing 12, the only element remotely analogous to the claimed main reflector is radiating cavity 24 — which is plainly far within the inward edge of the conductive "ring" 14 identified by the Examiner and therefore fails to meet or suggest an application which might meet the claim limitation(s).

The Examiner's "motivation" for one to modify the cited references to meet the claims limitations is clear error:

As plainly shown by *Tubbs* figure 2, the "retaining clamp" 14 cited by the Examiner does not extend inward along the radome at least to an inner diameter of a distal end of a main reflector (assuming only for discussion purposes that the lower casing 12 is analogous to a main reflector or the band 14 has structural similarities to a conductive ring, as the Examiner appears to argue).

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Because the main reflector has a sidewall thickness, a clamp about a sealing surface on an outside periphery of the main reflector will never reach as far as an inner diameter of the main reflector... as plainly shown by Tubbs, figure 2. When the sections of the primary reference Kildal main reflector are reviewed the main reflector has either significant thickness (fig. 1, 11) or a protruding edge (fig. 2, 12, 13, 14) that the Examiner's hypothetical modified clamp would have no purpose passing inward of (because it would not be sealing against anything but open space), either of which plainly expose the Examiners alleged basis for extending the clamp sufficiently far inward as clear error. The Examiners discussion of one skilled in the art being motivated to extend only the radome side of the clamp further inward than that of the main reflector side is specious and without basis in fact or anything appearing in either reference, whatsoever. Extra material expended upon the radome side, only, would be wasted extra expense, because the overall "joint" the Examiner suggests one skilled in the art would be improving is only as strong as the weakest portion - the main reflector side which as demonstrated herein above, would never project inward of the inner diameter of the main reflector. Therefore, there is no basis for the Examiners proposed combination and any rejection(s) based thereon are clear Examiner error.

The Examiner's suggested combination renders the prior art unsatisfactory for its intended purpose and or changes the principle of operation; thereby a prima facie case for obviousness has not been established:

Kildal provides electrical chokes in the form of corrugations 40 or spaced away ring(s) 41, 42 or 51. The various ring(s) formed as a metal band or a dielectric spacer that is metallically coated and or adjacent a metal ring outside of the rim of the main reflector to reduce far-out side lobes (abstract, see figs 1, 2, 11, 12, 13 and 14). To prevent these features from being nullified, Kildal specifically teaches that the radome to main reflector interconnection is via hooks used to retain the metal ring 51 and radome 50 upon the reflector dish outer flange (col. 6, In 56-59). Anyone skilled in the art plainly recognizes that, as Kildal itself teaches, completely covering these features with a surrounding metal retaining band, according to Tubbs as suggested by the

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Examiner, would destroy the operation of these features of the invention. Proposed modifications that render the prior art unsatisfactory for its intended purpose and or change the principle of operation prevent the present rejections from establishing a prima facie case for obviousness (*In re Gordon* 221 USPQ 1125 (Fed. Cir. 1984); *In re Ratti* 123 USPQ 349 (CCPA 1959). The Examiner's argument to the contrary is clear Examiner error.

With respect to claims 4, 11 and 18 the Examiner erroneously applies incompatible portions of each reference to attempt to meet all claim limitations.

The Examiner identifies that *Kildal* discloses that the conductive ring forming one of the electrical cavities may be metalized, electrodaged or over molded upon the radome (*Kildal col. 6, In 59-63*). This is a "conductive ring" applied in *Kildal* to form an electrical cavity by coating a dielectric ring 40. The "conductive ring" is plainly outside the periphery of the main reflector thereby failing to meet the claim requirements as acknowledged by the Examiner's admission of same and application of the *Tubbs* reference. The Examiner's basis (erroneous as described herein above) for combining the separately formed metal clamping ring of *Tubbs* with *Kildal* is to "provide a stronger attachment". Therefore, it is clear error to suggest that this metal clamping ring may be somehow formed as "metalized, electrodaged or over molded upon the radome" according to claims 4, 11 or 18 as these thin metallic surface coating ring forms have no retaining property, whatsoever. Either the Examiner has identified a conductive ring that is outside of the main reflector periphery (admitted by the Examiner) or the Examiner is suggesting that a retaining function may be achieved by a conductive ring that is metalized, electrodaged or over molded upon a radome (a teaching that appears nowhere in either reference and is contrary to common sense). Either position renders these rejections clear Examiner error.

Conclusion:

Because each and every rejection is clear Examiner error, each of the present rejection(s) should be withdrawn and a notice of allowance issued.

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Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office (Fax No 571 273-8300) on February 3, 2006.

Andrew D. Babcock

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